ATTACHMENT A

PLACER COUNTY COMMENTS
ON
TENTATIVE
WASTE DISCHARGE REQUIREMENTS AND
CEASE AND DESIST ORDER
FOR
PLACER COUNTY DEPARTMENT OF FACILITY SERVICES
PLACER COUNTY SEWER MAINTENANCE DISTRICT 1
WASTEWATER TREATMENT PLANT
PLACER COUNTY

Submitted April 15, 2010

I. GENERAL COMMENTS

Request for Capacity Expansion

As part of the *Report of Waste Discharge* (ROWD), the County requested an increase in permitted average dry weather discharge capacity from 2.18 million gallons per day (mgd) to 2.7 mgd for the SMD 1 WWTP, contingent upon completion of the WWTP upgrade and expansion project. Along with the request in the ROWD, the County submitted the *Antidegradation Analysis for the Placer County SMD 1 Wastewater Treatment Plant* (Antidegradation Analysis) in accordance with the guidance provided in the State Water Resources Control Board's APU 90-004. This request was addressed via the "Expansion Option" accompanying the Tentative Order, as an option to be presented to and decided by the Regional Water Board. The County reiterates this request for the reasons described below.

As stated at the April 2009 Regional Water Board meeting and in subsequent semi-annual progress reports, the County has continued to pursue connecting to the City of Lincoln's Wastewater Treatment and Reclamation Facility (WTRF) in an effort to regionalize wastewater treatment and disposal as an alternative compliance solution for SMD 1 (see Attachment B for additional details regarding the County's past efforts towards regionalization). The estimated costs for connecting to the City of Lincoln WTRF by constructing the Regional Sewer Project far exceed estimated costs for the proposed SMD 1 WWTP upgrade and expansion. The difference in costs between the two compliance alternatives is in excess of $41 million; even if $14 million in currently authorized federal grants is appropriated. These Congressional grant appropriations are discretionary and have been slow to materialize. An additional $41 million in debt service for the approximately 4,600 connections in the SMD 1 service area is not economically feasible. Because of the considerably higher costs to construct the Regional Sewer Project, and because additional State or federal grant funds have not been made available despite the County's best efforts, SMD 1 and its ratepayers cannot afford the cost of regionalization, thereby making regionalization infeasible at this time.

In addition, the County projects that the Regional Sewer Project will take seven years to complete once full funding has been secured. This is two years longer than anticipated for the SMD 1 WWTP upgrade and expansion. This longer completion period acknowledges that it will take longer to design, complete environmental documentation, and construct the Regional Sewer Project due to the project complexities, higher potential for unknowns and length of pipe required. The difficulty of regionalization is further compounded by the fact that multiple agencies must participate or the SMD 1 cost share will be even greater. Negotiations of this highly complex issue between the County, the City of Auburn, and the City of Lincoln are ongoing, but there is no resolution at this time.

The WWTP upgrades proposed are necessary to achieve compliance with current and anticipated future permit limitations. Once upgraded, the quality of effluent from the SMD 1 WWTP would be equivalent to or better than the quality of effluent discharged from the City of Lincoln's WTRF. The only difference would be the point of discharge. For economic and logistical reasons, and the physical constraints of the size of the WWTP site, capacity expansion for the future needs to be addressed concurrent with the WWTP upgrades. Attempting to address only upgrades now and expanded capacity later would result in two separate projects that would ignore economy of scale and sound engineering practices, thereby resulting in a much more costly and disruptive set of projects compared to addressing both in a single upgrade/expansion project. Furthermore, the size of the WWTP site is limited such that it would not be feasible to simply "tack on" additional facilities later. The County would be hesitant to expend valuable resources on upgrading the SMD 1 WWTP if the facility is not expanded to provide sufficient capacity to address future needs. Without the improvements, SMD 1 will be unable to comply with final effluent limitations in the Tentative Order that become effective immediately for some constituents and in 2015 for others.

Instead of denying the County's request for an increase of permitted capacity, we request that the Tentative Order be adopted with an allowable increase in the permitted discharge capacity to 2.7 mgd contingent on completion of WWTP upgrades. By permitting the capacity increase in this manner, the Regional Water Board would not be precluding the possibility of regionalization should the grant monies become available in the near future (i.e., this year). This approach is not new and is consistent with Waste Discharge Requirements for City of Roseville, Order No. R5-2008-0079.

Satisfaction of Antidegradation Policy

As required to support the request for expanded permitted discharge capacity to 2.7 MGD, the County submitted the *Antidegradation Analysis for the Placer County SMD 1 Wastewater Treatment Plant* (Antidegradation Analysis) in accordance with the guidance provided in the State Water Resources Control Board's APU 90-004. The County has concerns with the Satisfaction of Antidegradation Policy discussion in both the Tentative Order and the "Expansion Option." These concerns are described in general below. Specific requested text modifications are provided later in this attachment.

Tentative Order

The discussion of the satisfaction of the Tentative Order with the State's Antidegradation Policy (beginning on p. F-63) is incomplete, implies that the Antidegradation Analysis was not conducted consistent with State Policy and APU-90-004, and makes several generalized statements. The County is concerned that certain statements (e.g., "The Regional Water Board does not concur with the Discharger's Antidegradation Analysis" [p. F-63]) will preclude the Regional Water Board's ability to grant expanded capacity in the future via the Reopener Provision – which will be necessary should the "Expansion Option" be rejected. Furthermore, the Tentative Order concludes that regionalization is a feasible alternative to expanded treatment capacity without regard to the cost to implement regionalization, and even states that future per capita costs for wastewater treatment and disposal will be less with regionalization without citing any supporting economic analysis. Current financial projections prepared by County staff do not support the finding that there is a future economic benefit to SMD 1 ratepayers through regionalization. As shown in Table F-10 (taken from the Antidegradation Analysis) both the capital cost and the ongoing operational cost of regionalization are higher than the proposed upgrade and expansion cost. The discussion in the Tentative Order relies, in part, on findings in Resolution No. R5-2009-0028 in Support of Regionalization, Reclamation, Recycling, and Conservation for Wastewater Treatment Plants. The resolution is based on broad generalizations that regionalization is always the most cost effective solution, which on a case by case basis may not be true. In addition, the findings presented in the Tentative Order based on this resolution are sometimes presented out of context.

Text modifications are needed to the Satisfaction of Antidegradation Policy discussion in the Tentative Order to accurately: (1) reflect the findings of the Antidegradation Analysis versus the additional information considered by the Regional Water Board, (2) cite findings in Resolution No. R5-2009-0028, and (3) define the Regional Water Board's basis for denying expanded capacity. Provided later in this attachment is revised text for this section for your consideration. Some of the revised text is based on the "Expansion Option" text. The County does not agree that all of that text is optional, as some of it contains facts and findings regarding the Antidegradation Analysis (e.g., "The Regional Water Board concurs with this scientific approach.") that will be particularly relevant if the Order must be reopened in the future to allow for expanded discharge capacity. As such, key facts and findings regarding the Antidegradation Analysis need to be included in the Tentative Order.

Expansion Option

While the Satisfaction of Antidegradation Policy discussion in the "Expansion Option" is significantly expanded relative to the Tentative Order, the County still has concerns with certain unsupported statements (described above), such as "costs associated with meeting future regulatory requirements and system upgrades…will ultimately reduce the per capita costs of wastewater treatment and disposal," as well as an incomplete description of Antidegradation Analysis versus Regional Water Board findings and Resolution No. R5-2009-0028 findings. Provided later in this document is revised text for this section for your consideration.

Prescription of Operations and Treatment

The County requests that all requirements in the Tentative Order that prescribe the method of treatment necessary to comply with the effluent and receiving water limitations be deleted, or modified as recommended below. None of these requirements are necessary to assure compliance with effluent limitations and, as written, they will greatly increase capital and operating costs. Further, the California Water Code specifically states that the Regional Water Board shall not specify the manner of compliance, including prescribing the treatment process. (Wat. Code §13360(a).)

The Tentative Order contains an operation specification (p. 25) that states, "Wastewater shall be oxidized, coagulated, filtered, and adequately disinfected pursuant to the Department of Public Health (DPH; formerly the Department of Health Services) reclamation criteria, CCR, Title 22, division 4, chapter 3, (Title 22), or equivalent." This specification defines treatment methods related to Title 22, division, 4, chapter 3, which is a prescription of treatment that is inconsistent with Water Code section 13360(a) and the Tentative Order's Fact Sheet (p. F-48), which states: "The method of treatment is not prescribed by this Order." The County requests the following changes in wording of this specification to make clear that the SMD1 WWTP is to achieve compliance with effluent limitations based on the quality of effluent produced under Title 22 requirements, not the Title 22 requirements themselves, which the Fact Sheet (p. F-47) acknowledges are not directly applicable to surface waters. This wording is the same as that contained in Order No. R5-2008-0173 for the EID's Deer Creek Wastewater Treatment Plant. The requested edit also applies to the top of p. 30, item "b" on p. F-82, and item "c" on p. F-85.

> b. Wastewater shall be ~~oxidized, coagulated, filtered, and adequately disinfected~~ treated to achieve effluent limitations contained in Section IV.A.1 of this Order ~~pursuant to~~ that are consistent with the Department of Public Health (DPH; formerly the Department of Health Services) reclamation criteria, CCR, Title 22, division 4, chapter 3, (Title 22), or equivalent, in accordance with the compliance schedule in Section VI.C.7.b, below.

The WWTP upgrades proposed by SMD 1 will provide an equivalent level of treatment, which will be demonstrated through achievement of the equivalent to tertiary treatment-based biochemical oxygen demand (BOD), total suspended solids (TSS), and total coliform limitations and the operation specification for turbidity.

In addition to prescriptive treatment process requirements, the Tentative Order includes extensive operation-related monitoring requirements (e.g., Expansion Option: Page 3, Page 20 Paragraph 7, and Table E-10). In particular, the Expansion Option contains selected paragraphs from California Title 22 Water Recycling Criteria and the National Water Research Institute (NWRI) Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse. The purpose of the NWRI Guidelines is to provide guidance for designing and operating ultraviolet (UV) disinfection systems rather than for permitting. The Tentative Order Expansion Option goes so far as to specify the minimum UV dose and transmittance, which are based on guidelines that assume treatment of a lower quality water than will reach the UV system at the SMD 1 WWTP. Further, the power-related specifications presume that the County will be installing a certain type of UV disinfection system and prevent the County from realizing the benefit from installing a

UV system that requires less power to operate to achieve the same level of treatment. The UV disinfection operations requirements will further compound the complexity of the reporting, require more power be used than necessary to achieve disinfection requirements (increasing the carbon footprint of the WWTP operation), increase operating costs, and are not necessary to protect water quality. In some cases, the requirements duplicate other requirements, leading to future misunderstandings. The level of effort required to address these issues at the enforcement level (after Tentative Order adoption) will add other significant costs to the County without benefit to water quality. Consequently, the County requests that all requirements that relate to how the UV disinfection system is operated and maintained be deleted from the Order.

Effluent Limitations for Aluminum

The U.S. EPA developed National Ambient Water Quality Criteria (NAWQC) for aluminum for protection of freshwater aquatic life (EPA 440/5-86-008; August 1988). The recommended 4-day average (chronic) and 1-hour average (acute) criteria are 87 µg/L and 750 µg/L, respectively, for waters with a pH of 6.5 to 9.0. As stated on p. 6 of the aluminum NAWQC document, "Thus, the Final Chronic Value for aluminum is equal to the Criterion Maximum Concentration of 748 µg/L for fresh water at a pH between 6.5 and 9.0 (Table 3). Data in Table 6 concerning the toxicity of aluminum to brook trout and striped bass show that the Final Chronic Value should be lowered to 87 µg/L to protect these two important species." The U.S. EPA lowered its initially derived 748 µg/L Final Chronic Value to 87 µg/L (see Table 3, p. 22) based on two tests, one with brook trout and one with striped bass, at low hardness (10-12 mg/L as $CaCO_3$) and low pH (6.5-6.6). The 87 µg/L value is considered to be necessary for protecting waters concurrently experiencing such low hardness and pH. For waters not experiencing concurrent total hardness of 10-12 mg/L (as $CaCO_3$) and pH of 6.5-6.6, the U.S. EPA indicates that the 750 µg/L criterion (rounded to two significant figures from its originally derived 748 µg/L Final Chronic Value) is protective of aquatic life.

Because the lowest measured upstream receiving water hardness is 20 mg/L (as $CaCO_3$) and the lowest measured effluent hardness is 141 mg/L (as $CaCO_3$), downstream receiving water hardness would always be above 20 mg/L (as $CaCO_3$) and substantially greater than the 10-12 mg/L (as $CaCO_3$) hardness range where the 87 µg/L chronic criterion is applicable. In fact, under conditions where the downstream flow in the receiving water is dominated by the discharge and, thus, downstream receiving water aluminum levels would be predominantly affected by the discharge, downstream total hardness would be on the order of 80 mg/L (as $CaCO_3$) or greater. Thus, 750 µg/L should be determined to be the chronic aquatic life criterion applicable to the receiving water at and downstream of the discharge location.

The Fact Sheet (p. F-37) notes that the final effluent hardness is affected by the addition of magnesium hydroxide to the primary clarifier to provide alkalinity for nitrification. The Fact Sheet also notes that the use of magnesium hydroxide may be discontinued following the planned WWTP upgrade, which will reduce the hardness of the final effluent and downstream receiving water hardness relative to current levels – though it does not specify the resulting levels and whether those would be in the range at which the 87 µg/L or 750 µg/L chronic criterion would be applicable. The County contends that the determination of the applicable chronic aluminum criterion should be based on the hardness of the current final effluent

produced by the WWTP, as characterized in the data set submitted as part of the ROWD (i.e., lowest measured effluent hardness is 141 mg/L as $CaCO_3$), and not based on speculation that effluent hardness may be low enough in the future to make the 87 µg/L chronic criterion applicable. Furthermore, once the WWTP upgrade is complete, effluent hardness will likely never be sufficiently low to make the 87 µg/L chronic aluminum criterion applicable.

The Monitoring and Reporting Program requires that hardness be monitored 1/month, thus any future changes in effluent hardness will be closely tracked. The Tentative Order contains a Reopener Provision that states, "Conditions that necessitate a major modification of a permit are described in 40 CFR 122.62, including…When new information, that was not available at the time of permit issuance, would have justified different permit conditions at the time of issuance." A major future change in effluent hardness tied to reducing the use of magnesium hydroxide would constitute new information that is unknown and, thus, not available at this time.

Concentrations of aluminum in the effluent do not exceed the currently applicable chronic aquatic life criterion of 750 µg/L, nor the applicable drinking water MCL of 200 µg/L. As such, the discharge does not demonstrate reasonable potential to cause or contribute to an in-stream excursion above the applicable criteria for protection of freshwater aquatic life or human health. Thus, the County requests that effluent limitations for aluminum be removed from the Tentative Order. Specific sections from which aluminum should be removed include: p. 8 (M. Stringency of Requirements for Individual Pollutants), p. 12 (Table 6. Final Effluent Limitations), p. E-5 (Table E-3, Effluent Monitoring), and p. H-1 (Attachment H-Calculation of Water Quality-Based Effluent Limitations). In addition, Attachment G (Summary of Reasonable Potential Analysis) should be changed to show the CCC for aluminum as 750 µg/L and "Reasonable Potential" column changed to "No." Additional edits are described later in this attachment.

Addition of New Effluent Limitation for Arsenic

The Tentative Order identifies the lowest applicable water quality objective for arsenic as the primary maximum contaminant level (MCL) of 10 µg/L, implemented as an annual average basis. The Tentative Order (p. F-40) cites the maximum annual average effluent concentration at the SMD 1 WWTP for arsenic as 21.5 µg/L and uses this value for the reasonable potential analysis and determination that an arsenic effluent limitation is needed. The County disagrees with the finding that the maximum annual average effluent concentration at the SMD 1 WWTP for arsenic is 21.5 µg/L, and that an effluent limitation for arsenic is needed.

First, the 21.5 µg/L value cited is a concentration reported for a single measurement on November 8, 2007, not the average of multiple arsenic measurements over a 12-month (i.e., annual) period. Figure 1 below shows that, with the exception of this 21.5 µg/L value, measured arsenic concentrations in the effluent have never been above 0.825 µg/L (n = 20) over the period for which data are available (March 2002-February 2003 and October 2005 – January 2010). If the 21.5 µg/L value was averaged with only two other measurements, the result would be an average concentration less than 10 µg/L. Thus, this 21.5 µg/L value is not representative of typical arsenic concentrations in the SMD 1 WWTP effluent, nor is it representative of an annual average concentration. This is further evident when considering the maximum effluent concentration (MEC) of arsenic in effluents of other Central Valley region wastewater treatment

plants. Table 1 summarizes the MECs reported in the most recently adopted NPDES permits for the identified facilities, which shows that typical MECs have been below the arsenic MCL of 10 µg/L, and in fact have been below 4 µg/L.

Table 1. Other Central Valley Region Discharger Arsenic Data

Discharger	Arsenic MEC (ug/L)
EID-Deer Creek	0.39
EID-El Dorado Hills	1.9
Roseville-Dry Creek	0.8
Roseville-Pleasant Grove	0.7
Vacaville-Easterly	3.8

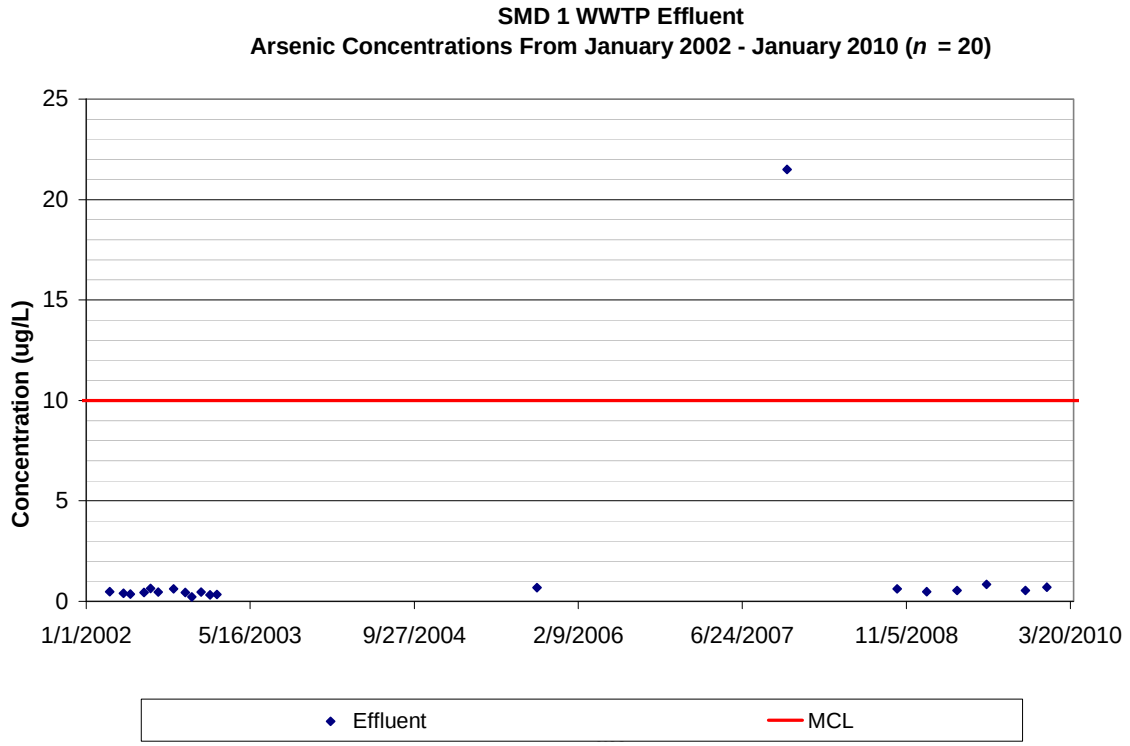

Figure 1. SMD 1 WWTP Effluent Arsenic Concentrations

As part of conducting reasonable potential analyses, the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also referred to as the Statewide Implementation Plan or SIP) (Step #7 on p. 6) states the Regional Water Board may "*Review other information available to determine if a water quality-based effluent limitation is required, notwithstanding the above analysis in Steps 1 through 6, to protect beneficial uses. Information that may be used to aid in determining if a water quality-based effluent limitation is required includes: the facility type, the discharge type, solids loading analysis, lack of dilution, history of compliance problems, potential toxic impact of discharge,*

fish tissue residue data, water quality and beneficial uses of the receiving water, CWA 303(d) listing for the pollutant, the presence of endangered or threatened species or critical habitat, and other information." The County believes the Regional Water Board can consider the above information as part of "other information" needed to properly determine whether effluent limitations for arsenic are needed in the Tentative Order and, based on this other information, can conclude that an arsenic effluent limitation is not needed because reasonable potential for arsenic does not exist. The County requests that the arsenic effluent limitation be removed.

Specific sections from which arsenic should be removed include: p. 8 (M. Stringency of Requirements for Individual Pollutants), p. 13 (Arsenic Effluent Limitation), and p. E-5 (Table E-3, Effluent Monitoring). In addition, Attachment G (Summary of Reasonable Potential Analysis) should be changed to show the MEC for arsenic as "<10 µg/L" with footnote #4 changed to state: "The individual non-averaged MEC for arsenic was 21.5 µg/L. However, all other effluent arsenic concentrations (n = 19) were less than 0.825 µg/L. Therefore, there is no reasonable potential for the annual average arsenic concentration in the effluent to cause exceedance of the MCL." Also, the "Reasonable Potential" column should be changed to "No."

Addition of New Effluent Limitations for Copper and Lead

As discussed in the Report of Waste Discharge (ROWD), the 21.9 µg/L and 25.2 µg/L values reported for copper and lead, respectively, are outliers recorded on the same effluent sample by a laboratory not typically used by the County for metals analysis, and are not representative of effluent levels for these constituents. Based on a review of available effluent data for the period January 2002 to January 2010, and excluding the outliers, the maximum copper concentration was 10.1 µg/L and the remaining detected concentrations ranged from 0.88 to 5.2 µg/L (n = 57), as shown in Figure 2. Based on available data and excluding outliers, the maximum effluent lead concentration was 1.8 µg/L (n = 57), as shown in Figure 3 and Figure 4.

It is further evident that the 25.2 µg/L value for lead is not representative when compared to the MEC of lead for other Central Valley region wastewater effluents. Table 2 summarizes the MECs reported in the most recently adopted NPDES permits for the identified facilities, which shows that MECs have been below 1 µg/L.

Table 2. Other Central Valley Region Discharger Lead Data

Discharger	Lead MEC (ug/L)
EID-Deer Creek	0.27
EID-El Dorado Hills	0.64
Roseville-Dry Creek	0.97
Roseville-Pleasant Grove	0.42
Vacaville-Easterly	0.85
Placerville-Hangtown Creek	0.45

Thus, the County requests that the non-representative values – the 21.9 µg/L and 25.2 µg/L values reported for copper and lead, respectively, be excluded from the data set used for reasonable potential analysis. Again, the SIP allows the Regional Water Board to consider additional information as part of conducting reasonable potential analyses (see Step #7, p. 6 of the SIP). Using the next highest measured values of 10.1 µg/L and 1.24 µg/L for copper and lead, respectively, the MEC is less than the lowest applicable water quality criterion (C), thus, the effluent does not exhibit reasonable potential for copper or lead. The County requests that the effluent limitations for copper and lead be removed from the Tentative Order. Specific sections from which copper and lead should be removed include: p. 8 (M. Stringency of Requirements for Individual Pollutants), p. 12 (Table 6. Final Effluent Limitations), p. E-5 (Table E-3, Effluent Monitoring), and p. H-1 (Attachment H-Calculation of Water Quality-Based Effluent Limitations). In addition, Attachment G (Summary of Reasonable Potential Analysis) should be changed to show the MEC for copper as 10.1 µg/L and for lead as 1.8 µg/L. Also, the "Reasonable Potential" column should be changed to "No."

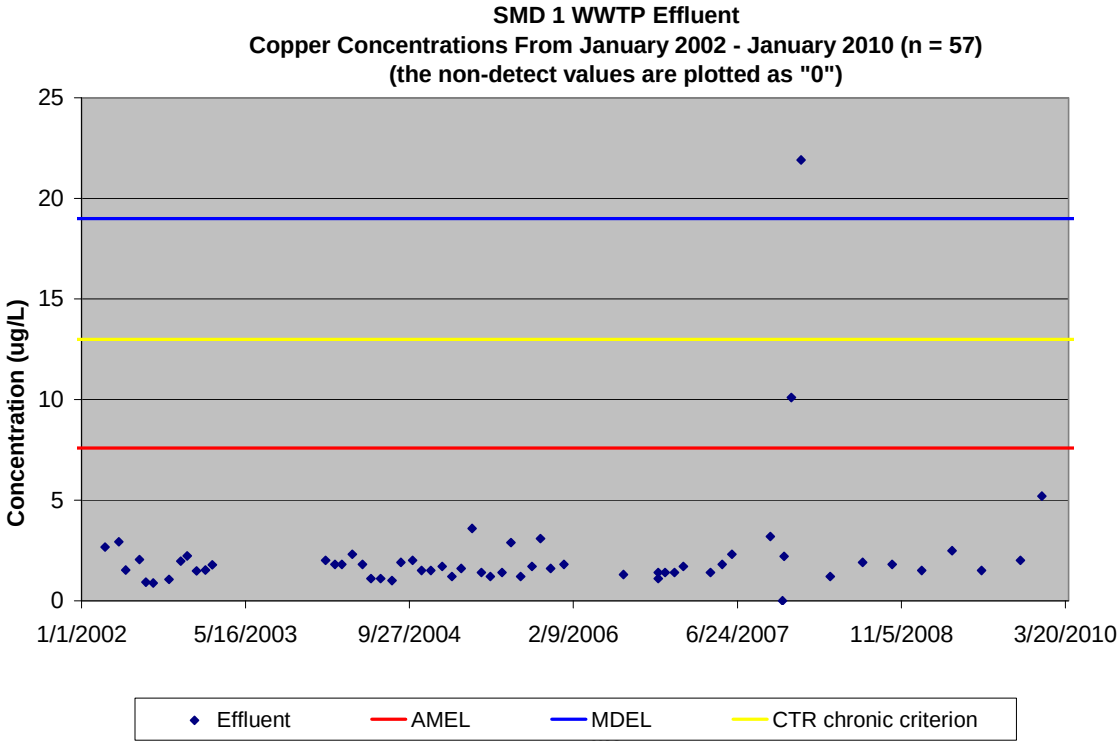

Figure 2. SMD 1 WWTP Effluent Copper Concentrations

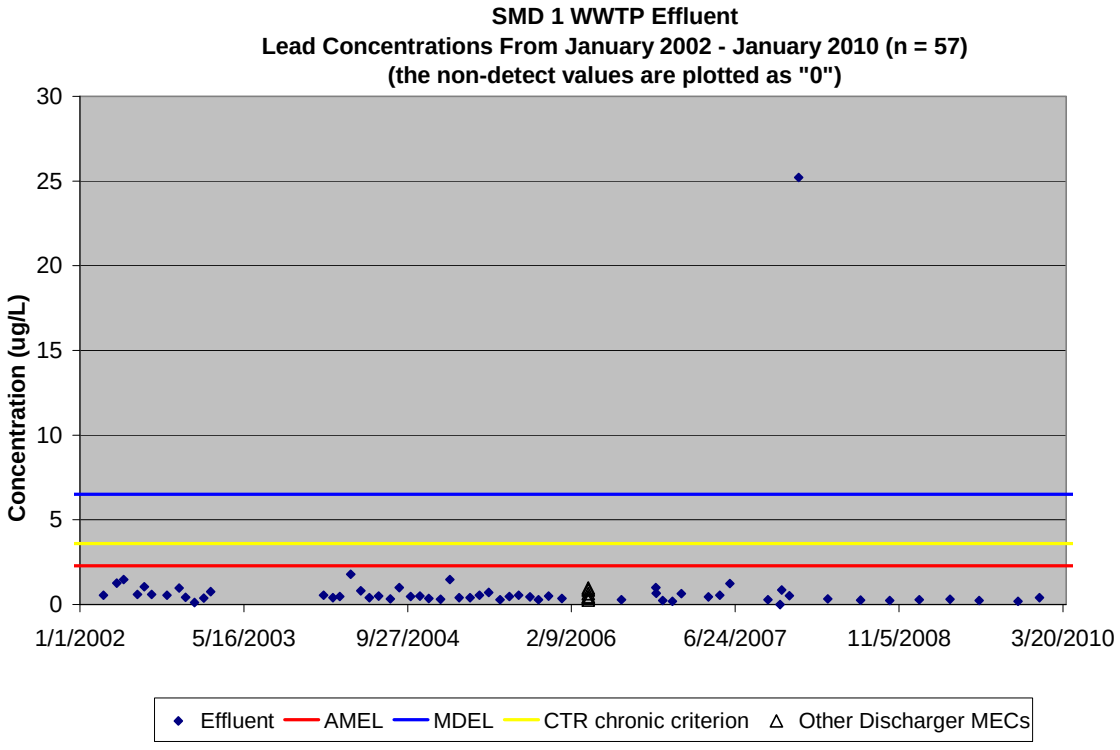

Figure 3. SMD 1 WWTP Effluent Lead Concentrations.

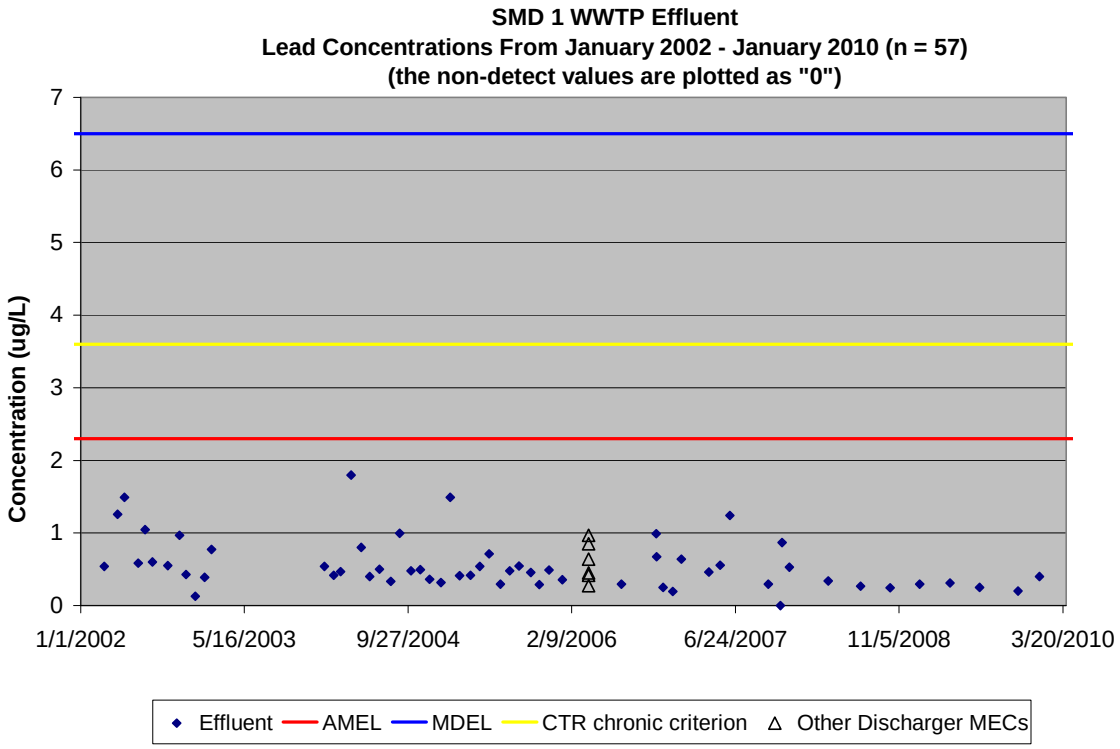

Figure 4. SMD 1 WWTP Effluent Lead Concentrations – zoomed in scale.

Compliance Schedules for BOD and TSS

The State's *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits* (Resolution 2008-0025) (Compliance Schedule Policy) allows for in-permit compliance schedules where there is a newly interpreted water quality objective or criterion in a water quality standard. (Compliance Schedule Policy at p. 3.) A "newly interpreted water quality objective or criterion in a water quality standard" means a narrative water quality objective or criterion that, when interpreted during NPDES permit development (using appropriate scientific information and consistent with state and federal law) to determine the permit limitations necessary to implement the objective, results in a numeric permit limitation more stringent than the limitation in the prior NPDES permit issued to the discharger. Pursuant to the Compliance Schedule Policy, the Tentative Order should include in-permit compliance schedules for biochemical oxygen demand (BOD) and total suspended solids (TSS), to the extent such requirements apply to discharges when influent flow exceeds 3.5 MGD and when the 7-day median temperature of the receiving water is less than 60°F. The new, more stringent water quality-based effluent limitations for BOD and TSS are derived from the narrative toxicity objective (see p. F-48) (and are more stringent than the federal Clean Water Act technology-based requirements for secondary treatment).

The current NPDES permit contains a set of effluent limitations for total coliform, turbidity, BOD and TSS when influent flow is less than 3.5 MGD based on the equivalent of tertiary treatment requirement. When flow is greater than 3.5 MGD and temperature is less than 60ºF as

a 7-day median, the current NPDES permit contains a less stringent effluent limitation for total coliform of 2.2 MPN/100 ml as a 30-day median as recommended previously by Department of Public Health (DPH). To accommodate the discharge of commingled tertiary/secondary wastewater, the current NPDES permit also contains effluent limitations for BOD, TSS, and turbidity that are less stringent than the equivalent of tertiary treatment-based limitations for these parameters.

The Tentative Order requires the equivalent of tertiary treatment, regardless of influent flow rate. The Tentative Order (p. F-50) states, "A discharge in accordance with the DPH recommendation may not protect contact recreation, food crop irrigation, and will not protect the beneficial uses of domestic and municipal supply during periods when the receiving water temperature is less than 60°F and treatment plant effluent flows exceed 3.5 MGD." Thus, the Regional Water Board is making the finding that a more stringent treatment requirement, which in turn means more stringent water quality-based effluent limitations for total coliform, BOD, and TSS and a more stringent operation specification for turbidity, are necessary to protect beneficial uses. BOD and TSS levels provide an indication of treatment performance, just as total coliform and turbidity levels do. Compliance schedules for total coliform and turbidity, which have more stringent limitations/specifications due to the equivalent of tertiary treatment requirement, have already been included in the Tentative Order.

Because the Tentative Order's BOD and TSS limitations are more restrictive than those in the current NPDES permit, reflecting a new interpretation of the narrative toxicity objective, and because BOD and TSS have not been included in a previous enforcement order, the County requests that the Regional Water Board provide in-permit compliance schedules and interim limitations for BOD and TSS, consistent with the approach for total coliform and turbidity.

II. CEASE AND DESIST ORDER

p. 1, Item 1, Facility Description. The County requests the following changes to the facility description to more accurately characterize the WWTP capacity:

> "1. On 23 June 2005, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order No. R5-2005-0074, and Cease and Desist Order (CDO) No. R5-2005-0075 prescribing waste discharge requirements and compliance time schedules for the Placer County Department of Facility Services (hereafter Discharger) Placer County Sewer Maintenance District 1 Wastewater Treatment Plant (hereafter Facility). The Facility is designed to provide tertiary treatment for average dry weather flows of 2.18 million gallons per day (MGD) ~~and peak wet weather flows of 3.5 MGD~~ for discharges to Rock Creek, a tributary to Dry Creek, the Bear River, and the Sacramento River. The Discharger has historically had high levels of inflow and infiltration during wet weather events ~~that have resulted in flows exceeding 3.5 MGD~~. During severe wet weather events, the Facility discharges a combination of secondary and tertiary treated wastewater."

p. 4, Items 13 and 15, Exemption from Mandatory Minimum Penalties. The County continues to maintain that aluminum effluent limitations in the Tentative Order are not warranted. However,

if the Regional Water Board proceeds to impose the effluent limitations, the County requests that the CDO provide a time schedule for compliance with the MDEL, including protection from mandatory minimum penalties for exceeding the aluminum MDEL. The MDEL for aluminum of 151 µg/L in the Tentative Order is more stringent than the MDEL in the current NPDES permit of 160 µg/L. Compliance with the new, more stringent limitation is uncertain. The County requests the CDO be modified to provide a five year schedule for coming into compliance and specify that exceedance of the aluminum MDEL is exempt from MMPs, pursuant to Water Code. section13385(j)(3).

Item 5, Effluent Limitations for BOD and TSS. As noted on p. 5 of this attachment, the County requests that the compliance schedule for these constituents be included in the permit in section IV.E. If the schedule remains in the CDO, the table describing the effluent limitations in Order No. R5-2005-0074 is missing the daily maximum limitations for BOD and TSS, which are 25 mg/l and 455 lbs/day.

III. WASTE DISCHARGE REQUIREMENTS

p. 1, Table 3, Administrative Information, Effective Date. The County recognizes that Board staff's standard approach regarding the effective date of Orders is 50 days after adoption at the Board hearing. Because of monitoring obligations in the current permit for PCBs (for which this facility no longer has reasonable potential), compliance schedules, and related considerations, the County requests that this Order become effective as soon after adoption as possible, which we understand to be 10 days following permit adoption by the Board.

p. 4, A. Background. The following sentence in this finding is incorrect. The County applied for discharge up to 2.7 MGD average dry weather flow (ADWF). The Tentative Order restricts the discharge to 2.18 MGD ADWF for reasons stated later in the Fact Sheet. The County requests the stated correction to accurately reflect the County's application for a renewed NPDES permit.

> "The Discharger submitted a Report of Waste Discharge, dated 5 October 2009, and applied for a NPDES permit renewal to discharge up to ~~2.18~~ 2.7 MGD of treated wastewater from the Placer County Sewer Maintenance District 1 Wastewater Treatment Plant, hereinafter Facility."

p. 4, B. Facility Description (and p. F-4, item A and F-74, item e). The County requests the following changes to the facility description to more accurately characterize the treatment plant capacity:

> "The Facility is designed to provide tertiary treatment for average dry weather flows of 2.18 million gallons per day (MGD)~~ and peak wet weather flows of 3.5 MGD~~. However, the Discharger has historically had high levels of inflow and infiltration (I/I) during wet weather events ~~that have resulted in flows exceeding 3.5 MGD~~. During severe wet weather events ~~when flows exceed 3.5 MGD~~, the Facility discharges a combination of secondary and tertiary treated wastewater."

The above edit also applies to p. F-4, item A (2nd paragraph) and p. F-74, item "e."

Furthermore, the County requests that the last paragraph of the Facility Description include the following language that is currently included in the "Expansion Option," as it is a statement of fact unaffected by findings in the Tentative Order regarding the granting or denial of expanded discharge capacity.

> "In October 2009, the Discharger submitted a Report of Waste Discharge that described plans to proceed with a project to upgrade the treatment process and expand the design capacity of the treatment plant to 2.7 MGD (average dry weather flow). As proposed in the Report of Waste Discharge, the upgraded and expanded Facility will include a new headworks, new primary clarifiers, new biological nutrient removal facilities, new secondary clarifiers and tertiary filters, new ultraviolet light disinfection facilities and new and renovated solids handling facilities."

p. 13, Electrical Conductivity Effluent Limitation. The Tentative Order includes a final effluent limitation requiring the annual average effluent electrical conductivity (EC) to not exceed 700 µmhos/cm. As acknowledged in the Tentative Order: "Based on the relatively low reported salinity, the discharge does not have the reasonable potential to cause or contribute to an in-stream excursion of water quality objectives for salinity." (Fact Sheet at F-54.) Despite the lack of reasonable potential, the Tentative Order proposes the final effluent limitation for EC "to limit the discharge of salinity to current levels." That is, the Tentative Order imposes a performance-based final effluent limitation for EC.

Because the SMD 1 WWTP discharge does not have reasonable potential to cause or contribute to an exceedance of applicable water quality objectives for salinity, a final effluent limitation for EC is not necessary. Indeed, the federal regulations provide that only where "…a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit *must* contain effluent limits for that pollutant." (40 C.F.R. § 12.44(d)(1)(iii), emphasis added.) Because a final effluent limitation is not necessary, the County requests the limitation for EC be removed. Specific sections from which EC should be removed include: p. 8 (M. Stringency of Requirements for Individual Pollutants), p. 12 (Table 6. Final Effluent Limitations).

p. 13, Total Ammonia Nitrogen (as N) Effluent Limitation. Delete "(as N)" which is redundant. Correct typo in first sentence to add space between "exceed_15.1."

p. 22, g. Increased Flow Reopener Provision. The County requests the following edit to this reopener provision. The reopener provision should be tied directly to consistency with the State's Antidegradation Policy and not be subject solely to progress toward regionalization, particularly since regionalization appears to be an economically infeasible option for the County. The same edit is needed on p. F-76. Additional documentation of the County's regionalization efforts is provided in Attachment B.

> **g. Increased Flow**. Upon availability of additional information indicating that an increase in ~~flow~~ discharge to Rock Creek is consistent with the State's Antidegradation Policy ~~in the best interest of the people of the State and documentation of the Discharger's progress towards regionalization~~, this Order may be reopened to allow an increased discharge to Rock Creek.

p. 22, h. Dilution/Mixing Zone Study Reopener Provision. Among the conditions for allowing a mixing zone, the SIP (p. 17) requires that a mixing zone shall not adversely impact biologically sensitive aquatic life resources or critical habitats, or produce undesirable or nuisance aquatic life. This Special Provision requires an evaluation of nutrient cycling as part of reconsideration of a nitrate+nitrite mixing zone. Extensive field work coupled with nutrient modeling would be necessary to address this provision's requirements. A nutrient cycling evaluation would only identify the fate of the nitrate+nitrite discharges. What would remain unknown is how the receiving waters respond, biologically, to the nitrate+nitrite discharges, and thus whether the aquatic communities are adversely affected or nuisance conditions exist. Rather than conducting a study of nutrient cycling, a more effective approach would be to conduct a biologically-based evaluation that characterizes the receiving waters' aquatic communities, which will provide information to directly determine whether aquatic communities are adversely affected or if nuisance conditions exist. Thus, the County requests the following edit to tie this Special Provision directly to the SIP requirements for mixing zones. The same edit is needed on pp. F-31 and F-76.

> **Dilution/Mixing Zone Study.** In order to allow dilution credits for the calculation of WQBELs for nitrate plus nitrite, the Discharger must submit an approved Dilution/Mixing Zone Study which meets all of the requirements of Section 1.4.2.2 of the SIP. Should the Discharger submit an approved Dilution/Mixing Zone Study that meets the requirements of Section 1.4.2.2 of the SIP, including sufficient data demonstrating that assimilative capacity is available and that granting the mixing zone would not adversely impact biologically sensitive aquatic life resources or critical habitats, or produce undesirable or nuisance aquatic life ~~evaluating the seasonality of nutrient cycling in the receiving water~~, the Regional Water Board may reopen this Order to include effluent limitations based on an appropriate dilution factor for nitrate plus nitrite.

Attachment E - Monitoring and Reporting Program (MRP)

p. E-5, Table E-3, Effluent Monitoring. This table specifies 1/day monitoring for nitrate and nitrite. This monitoring frequency is excessive given that the limitation for these constituents is an AMEL. The County requests that the monitoring frequency be changed to 2/week. With this monitoring frequency, the effluent will be monitored at least eight times per month, which provides a suitable number of values from which to calculate a meaningful average. Reducing the monitoring frequency will allow the County to save substantially on analytical costs (plus County staff time) while still providing sufficient data to monitor the discharge. The Regional Water Board has adopted other permits with monitoring frequencies for nitrate and nitrite of less than 1/day (e.g., City of Roseville, R5-2008-0077 and R5-2008-0079, City of Placerville, R5-2008-0053, City of Vacaville, R5-2008-0055).

p. E-8, V.B.7. Dilutions. The goals of a toxicity reduction evaluation (TRE) are dependant on site-specific factors and past bioassay results. As such, performing a full dilution series during every TRE bioassay is not warranted. For example, if the effluent toxicity is suspected of being easily degraded or seasonal, it may be advisable to perform screening bioassays with 100% effluent to determine if toxicity is present and its stability before determining whether concurrent

monitoring and TIE work is advisable. Therefore, the County requests the following sentence be deleted from this section.

> ~~Chronic toxicity testing shall also be performed using the full dilution series identified in the following table for TRE monitoring.~~

p. E-10, Table E-6, Receiving Water Monitoring Requirements. Because the effluent total coliform limitations are substantially lower than the Basin Plan objective for fecal coliform, the discharge can never cause an exceedance of the fecal coliform objective as long as the WWTP is in compliance with effluent limitations. Therefore, the County requests that this receiving water monitoring requirement for fecal coliform be removed from Table E-6, as was done in EID's Deer Creek WWTP permit (Order No. R5-2008-0173), and recently renewed permits for the Cities of Placerville, Roseville, and Vacaville.

p. E-10, Table E-6, Receiving Water Monitoring Requirements. The County requests the frequency and schedule for receiving water priority pollutant monitoring be the same as that for the effluent (1/quarter (for 1 full year) during the 4th year of the permit term). The existing requirement in Table E-6 is contradictory. As written, Table E-6 indicates that receiving water priority pollutant monitoring is to be conducted 1/year; however footnote 4 to Table E-6 indicates that the monitoring is to be done concurrent with the effluent monitoring (during the 4th year of the permit term).

p. E-11, Table E-7, Receiving Water Monitoring Requirements. There is no reason for the additional bacteria monitoring in the receiving water specified in Table E-7, because the effluent is monitored for bacteria directly. The County requests that these additional monitoring requirements be removed from the Monitoring and Reporting Program.

p. E-12, B. Municipal Water Supply. This section of the Monitoring and Reporting Program requires the County conduct EC and TDS monitoring of the municipal water supply. EC and TDS are monitored by the SMD 1 service area water suppliers, Nevada Irrigation District and Placer County Water Agency. The County requests this section be modified as follows:

> The Discharger shall report on the EC and TDS levels in the municipal water supply delivered to the Discharger's service area. This may be accomplished either by monitoring at SPL-001 at the monitoring frequencies specified in Table E-8 or by obtaining monitoring results from the municipal water suppliers in the Discharger's service area. ~~Municipal water supply samples shall be collected at approximately the same time as effluent samples.~~

p. E-16, B. Self Monitoring Reports (SMRs). The County requests the addition of a paragraph (similar to paragraph 6 Multiple Sample Data on Page E-15 for priority pollutants) that specifies how to compute an arithmetic mean when a non-priority pollutant data set (e.g. BOD) includes one or more reported determinations of ND and DNQ.

Attachment F - Fact Sheet

p. F-6, Table F-2, Historic Effluent Limitations and Monitoring Data. The table is incomplete. The County requests that historic effluent limitations and monitoring data also be added for Arsenic, Chlorodibromomethane, Electrical Conductivity, Turbidity and Chronic Toxicity (since each constituent is subject to a proposed limitation). In addition, "(as N)" should be added after Total Ammonia.

p. F-7, Table F-2, Historic Effluent Limitations and Monitoring Data. The County requests the following footnote be added to the existing "average dry weather flow" effluent limitation and be added on Page F-8 to provide clarification that this limitation is not a "maximum daily" limitation as shown in the table:

> [31] Defined as the average of daily flows for the three-month period of July, August, and September.

p. F-9, E. Planned Changes. The County requests that the first sentence of the second paragraph of this section be revised as follows:

> Since the estimated cost for the Discharger to participate in regionalization is $41 Million greater than the cost to upgrade the SMD 1 WWTP, the Discharger has indicated it plans to upgrade the treatment process to comply with permit requirements in the report of waste discharge.

Furthermore, the County requests the last paragraph of this section be modified as follows:

> As described further in section IV.D.4 of this Fact Sheet, ~~degradation of water quality resulting from the proposed increased discharge is not in the best interest of the people of the State and is not consistent with State and federal antidegradation requirements. Furthermore, construction of the proposed expansion is not planned until December 2014 and it is uncertain whether construction would actually be completed within the term of this Order. Therefore,~~ this Order does not authorize the Discharger's proposed increase. This Order contains a reopener provision to reconsider the proposed increase upon availability of additional information indicating that an increase in ~~flow~~ discharge to Rock Creek is consistent with the State's Antidegradation Policy ~~in the best interest of the people of the State and documentation of the Discharger's diligent efforts towards regionalization~~.

p. F-16, Applicable Technology Based Requirements for BOD and TSS. This paragraph incorrectly includes a discussion of the water quality-based effluent limitations for BOD and TSS applied to the discharge to achieve the equivalent of tertiary treatment in order to protect beneficial uses. These are not technology-based requirements, which for POTWs under the Clean Water Act are defined as secondary treatment. This paragraph should be deleted and replaced with the paragraph below. The remainder of the paragraph should be moved to the discussion of water quality based effluent limitations and revised as indicated:

> **a. BOD_5 and TSS**. Federal regulations, 40 CFR Part 133, establish the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for BOD5 and TSS. As discussed in the following section, water quality based effluent limitations for BOD and TSS based on tertiary treatment are necessary to protect the beneficial uses of the receiving waters. In addition, 40 CFR 133.102, in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average percent removal shall not be less than 85

percent. If 85 percent removal of BOD5 and TSS must be achieved by a secondary treatment plant, it must also be achieved by a tertiary (i.e., treatment beyond secondary level) treatment plant. This Order contains a technology based effluent limitation requiring an average of 85 percent removal of BOD5 and TSS over each calendar month.

Insert the following at p. F-47, **xi. Pathogens**:

This permit contains water quality based effluent limitations for BOD and TSS based on the technical capability of the tertiary process. BOD5 is a measure of the amount of oxygen used in the biochemical oxidation of organic matter. The tertiary treatment standards for BOD5 and TSS are indicators of the effectiveness of the treatment processes. The principal design parameter for wastewater treatment plants is the daily BOD5 and TSS loading rates and the corresponding removal rate of the system. In applying 40 CFR Part 133 for weekly and monthly average BOD5 and TSS limitations, the application of tertiary treatment processes results in the ability to achieve lower levels for BOD5 and TSS than the technology based secondary standards currently prescribed; the 30-day average BOD5 and TSS limitations have been revised to 10 mg/L, which is technically based on the capability of a tertiary system. In addition to the average weekly and average monthly effluent limitations, a daily maximum effluent limitation for BOD5 and TSS is included in the Order to ensure that the treatment works are not organically overloaded and operate in accordance with design capabilities.

p. F-17, Footnote #1 to Table F-3. The County requests the following edit be made to this footnote to define the average dry weather period as these three months: "~~e.g.~~ i.e., July, August, and September."

p. F-29, IV.C.2.e. Assimilative Capacity/Mixing Zone. The Fact Sheet states that the worst-case dilution in Rock Creek and Dry Creek is zero and that effluent limitations must be end-of-pipe limits. This finding is made based on other findings that flows in Rock Creek and Dry Creek depend on releases from upstream reservoirs, and that information from USGS maps and site visits indicate that these creeks had intermittent flows prior to the year-round flows that now exist with these reservoirs in place. A finding regarding available dilution based on what hypothetical unimpaired flows could be, rather than what actual flows have been, does not reflect the reality of water operations on these creeks. The upstream reservoirs are not slated for removal and there is no reason to believe that Nevada Irrigation District (NID) will stop delivering water to customers, as it currently does via Rock Creek, at least not within the five-year term of a NPDES permit. The County requests that the Regional Water Board determine the flows in Rock Creek and Dry Creek that are available for dilution using actual creek flow data, rather than a hypothetical flow condition that does not exist. The 10-year flow data set provides a substantial record of actual flows for Rock Creek and Dry Creek that should be used as the basis for determining available dilution. There is no technical justification to do otherwise.

p. F-37, IV.C.3.c.I. (a) Aluminum WQO. The County requests that all language pertaining to the speculation of future effluent hardness be removed from the Tentative Order. See also the Aluminum comment on p. 6-7 of this attachment. At a minimum, the County requests the text be modified as follows, as it is not certain the magnesium hydroxide use will cease and the degree

of hardness reduction that may occur cannot be judged as "significant" when it is unknown at this time.

> Although the effluent hardness may currently increase the downstream hardness, future modifications of the treatment process may result in changes in ~~to discontinue addition of~~ magnesium hydroxide use. These changes may ~~significantly~~ reduce the effluent hardness and, consequently, the downstream receiving water hardness to levels supportive of the applicability of the NAWQC chronic criteria for aluminum.

p. F-59, Table F-9, Summary of Effluent Limitations. The County requests Footnote #1 of Table F-3 defining "average dry weather flow" be added to this table.

p. F-63, 4. Satisfaction of Antidegradation Policy. As noted in the General Comments, the County is concerned that the Antidegradation Policy discussion is incomplete. The County requests this section be revised as follows to fully disclose the findings from the Antidegradation Analysis and clarify that it is the conclusions of the socioeconomic analysis of the Antidegradation Analysis with respect to regionalization that the Regional Water Board disagrees with. The text below is proposed for the Tentative Order, which is currently written to justify denial of the requested capacity expansion – though the County disagrees with this conclusion as discussed in our other comments provided herein.

> The Discharger developed a report titled, *Antidegradation Analysis for the Placer County SMD1 Wastewater Treatment Plant*, October 2009 (Robertson-Bryan Inc.), that provides an antidegradation analysis following the guidance provided by State Water Board APU 90-004. Pursuant to the guidelines, the Antidegradation Analysis evaluated whether changes in water quality resulting from a proposed ~~new~~ expanded capacity discharge to Rock Creek (proposed increase of 0.52 MGD for a total discharge of 2.7 MGD of tertiary treated wastewater) are consistent with the maximum benefit to the people of the State, will not unreasonably affect beneficial uses, will not cause water quality to be less than water quality objectives, and that the discharge provides protection for existing in-stream uses and water quality necessary to protect those uses. ~~The Regional Water Board does not concur with the Discharger's Antidegradation Analysis.~~Facts and findings from the Antidegradation Analysis are summarized below.
>
> **a. Water quality parameters and beneficial uses which will be affected by the proposed expansion and the extent of the impact**. 40 CFR 131.12 defines the following tier designations to describe water quality in the receiving water body.
>
> ***Tier 1 Designation**: Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. (40 CFR 131.12)*
>
> ***Tier 2 Designation**: Where the quality of waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State*

shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. (40 CFR 131.12)

The tier designation is assigned on a pollutant-by-pollutant basis. The following is the potential effect of the proposed expanded capacity 2.7 MGD ADWF discharge on water quality in Rock Creek, as assessed in the Antidegradation Analysis:

i. Rock Creek was designated as a Tier 1 receiving water for aluminum, bis (2-ethylhexyl) phthalate, and iron because these constituents were detected in the receiving water above water quality criteria. Thus, the SIP independently requires effluent limitations for these constituents, when detected in the discharge, as the means to prevent further degradation of the receiving water regardless of whether constituent levels in the proposed increased discharge do/do not exceed water quality criteria. For bis (2-ethylhexyl) phthalate, it is probable that the historical detects are due to contamination prior to implementing clean sampling techniques. The proposed incremental increase in discharge would not significantly lower water quality for these constituents in Rock and Dry creeks, relative to that which would occur under the current permitted capacity for the SMD1 WWTP, and would not change the Tier 1 designations.

ii. The proposed increase in discharge would use less than 10 percent of available assimilative capacity for all constituents assessed. Thus, the proposed increased discharge will be protective of beneficial uses, will maintain greater than 90 percent of assimilative capacity in Rock Creek, and will not change the Tier 2 designations.

iii. The proposed increase in discharge would use less than 10 percent of available assimilative capacity on a mass loading basis for total dissolved solids and the bioaccumulative constituents mercury and selenium, and will not change the Tier 2 designations.

b. Scientific rationale for determining that the proposed action will or will not lower water quality. The rationale used in the Antidegradation Analysis is based on 40 CFR 131.12, USEPA memorandum Regarding Tier 2 Antidegradation Reviews and Significance Thresholds (USEPA 2005), USEPA Region 9 Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12 (USEPA 1987), State Water Board Resolution No. 68-16, a State Water Board 1987 policy memorandum to the Regional Water Boards, and an Administrative Procedures Update (APU 90-004) issued by the State Water Board to the Regional Water Boards.

The scientific rationale used in the Antidegradation Analysis to determine if the proposed expansion would result in a lowering of water quality is to determine the reduction of available assimilative capacity. Assimilative capacity was calculated on a mass-balanced, concentration basis and, for bioaccumulative constituents, calculated on a mass loading basis. This approach is consistent with recent USEPA guidance and addresses a key objective of the antidegradation analysis to "[c]***ompare receiving water quality to the water quality objectives established to protect designated beneficial uses***" (APU 90-004). USEPA has recommended ten (10) percent as a measure of significance for identifying those substantial lowerings of water quality that should

receive a full tier 2 antidegradation review. APU 90-004 requires the consideration of "feasible alternative control measures" as part of the procedures for a complete antidegradation analysis.

The Antidegradation Analysis analyzed each pollutant detected in the effluent and receiving water to determine if the proposed increase in discharge from 2.18 MGD to 2.7 MGD would allow a significant increase of the amount of pollutants present in the upstream and downstream receiving water influenced by the proposed discharge. Pollutants that would significantly increase concentration or mass downstream would have required an alternatives analysis to determine whether implementation of alternatives to the proposed action would be in the best socioeconomic interest of the people of the region, and be to the maximum benefit of the people of the State. Details on the scientific rationale are discussed in detail in the Antidegradation Analysis.

The Regional Water Board concurs with this scientific approach.

c. **A description of alternative control measures considered**. Resolution 68-16 requires that degradation of water quality be consistent with maximum benefit to the people of the State. APU 90-004 identifies factors to be considered for regulatory actions "***that, in the Regional Board's judgement*** [sic]***, will result in a significant increase in pollutant loadings"*** (i.e., when a complete antidegradation analysis is required) when determining whether the discharge is necessary to accommodate social or economic development and is consistent with maximum public benefit~~,~~. The USEPA (2005) has recommended ten (10) percent use of available assimilative capacity as the measure of significance for identifying those substantial lowerings of water quality that should receive a full tier 2 antidegradation review. The Regional Water Board is exercising its judgment to require a complete antidegradation analysis, and ~~which includes~~ implementation of feasible alternative control measures which might reduce, eliminate, or compensate for negative impacts.

i. **Alternative control measures in Antidegradation Analysis.** The Discharger considered several alternatives that would reduce or eliminate the lowering of water quality resulting from the proposed increase in discharge from 2.18 MGD to 2.7 MGD. [**insert the paragraph on p. F-63 of the Tentative Order beginning with this sentence and the subsequent paragraphs through Table F-10**].

ii. **Additional information considered by Regional Water Board.** Table 3-1 of the Report of Waste Discharge summarized the existing and projected demands within the service area. As shown in Table 3-1, the projected demand will not surpass the current treatment capacity of 2.18 MGD until after 2020. Furthermore, the projected demand of 2.7 MGD on which the Discharger's request is based is not expected until 2034. Based on the information provided in the Report of Waste Discharge, demand is not expected to exceed the current treatment capacity of the Facility within the term of this permit. However, in a letter dated 22 February 2010, the Discharger expressed its need to expand the Facility capacity concurrent with implementing the upgrades necessary to achieve compliance with this Order for economical and logistical reasons. ~~Therefore, the Regional Water Board concludes that an increase in permitted flow is not necessary at this time.~~

The Discharger reported at the April 2009 Board Meeting, and in a subsequent semiannual progress report submitted 1 June 2009, that the Discharger is continuing to actively pursue regionalization. In a letter dated 22 February 2010, the Discharger indicated that the regionalization project would take at least 2 years to complete beyond the 5 years requested for the proposed expansion project (i.e., in 7 years) due to delays associated with the slow pace of acquiring federal funding and the need to resolve complex issues between the Discharger and other local entities. ~~Given the Discharger's recent documented intent to pursue regionalization, which would occur well before the demand in the service area approaches the current permitted capacity, expansion of the Facility to accommodate wastewater flows associated with planned growth by 2034 is unnecessary.~~

The Regional Water Board adopted Resolution No. R5-2009-0028 in Support of Regionalization, Reclamation, Recycling, and Conservation for Wastewater Treatment Plants on 23 April 2009, which requires the Regional Water Board to facilitate opportunities for regionalization and consider innovative permitting options when existing NPDES permit requirements, waste discharge requirements, and/or enforcement Orders inhibit the ability to implement regionalization. Resolution No. R5-2009-0028 identifies a number of potential benefits to regionalization including the following: ~~First, coordinated management of water supplies and wastewaters on a regional basis promotes efficient utilization of water. Second, reducing discharges of wastewater into seasonal or ephemeral streams such as Rock Creek and Dry Creek reduces habitat changes to the waterbodies that occur when wastewater is discharged into stream channels at locations, volumes or times when flow is not naturally present in the streams. Lastly,~~

- *"Reducing discharges of wastewater into seasonal or ephemeral streams reduces habitat changes to the waterbodies that occur when wastewater is discharged into stream channels at locations, volumes or times when flow is not naturally present in the streams."*
- *"The costs of constructing, expanding, upgrading and maintaining wastewater collection and treatment systems are large, and can be severe impact on small communities and small economically disadvantaged communities. Increased rates on most communities, but especially for the small communities in particular, result in the likelihood of a successful Proposition 218 challenge to rate increases, which may make compliance with regulations and improvements in water quality difficult or impossible for some communities. While the capital investment for regionalization of wastewater collection and treatment systems may result in a higher initial cost of upgrading an existing facility to meet current regulatory requirements, costs associated with meeting future regulatory requirements and system upgrades can be spread over a larger population and will ultimately reduce the per capita costs of wastewater treatment and disposal. Regionalization will also increase the technical and economical feasibility of a higher level of wastewater treatment, allowing the treated water to be a "resource" and not merely a "waste."*

The Discharger has stated that current financial projections prepared by County staff do not support a finding that there is a future economic benefit to SMD 1 ratepayers through regionalization. As shown in Table F-10 (taken from the Antidegradation Analysis) both the

capital cost and the ongoing operational cost of regionalization are higher than the proposed upgrade and expansion cost.

Furthermore, the Resolution No. R5-2009-0028 makes several findings including:

- *"Coordinated management of water supplies and wastewaters on a regional basis must be promoted to achieve efficient utilization of water."*
- *"Evaluating regionalization, reclamation, recycling and/or conservation opportunities requires a balancing of these and many other considerations, including impacts to water quality, costs, authority to implement and other factors necessary to determine if regionalization, reclamation, recycling and/or conservation are feasible and practicable for the specific facility(ies)."*
- *"Focused, long-range planning is necessary to identify and implement regionalization, reclamation, recycling and/or conservation opportunities. This is a continuing process in that certain projects may not be technically or fiscally feasible at this time, but may become feasible as the community grows, treatment systems are upgraded, or other factors change with time."*

~~For instance,~~ As an example of the potential, through regionalization, to treat the discharge as a resource rather than a waste, the City of Lincoln Wastewater Treatment and Reclamation Facility has a Master Reclamation Permit (Order No. R5-2005-0040) to use recycled water for the irrigation of fodder crops, rice, impoundments, industrial process cooling, and other purposes in the local community, whereas the Discharger determined that reclamation of its wastewater is not feasible at this time, as described in this section above (i.e., IV.D.4.b).

~~In balancing the proposed expansion against the public interest, the Regional Water Board finds that the reduction in water quality associated with the expansion is not offset by maximum public benefit to the people of the State. In particular, implementation of feasible alternative control measures (i.e., regionalization) are available that will reduce, eliminate, or compensate for the negative impacts of the proposed expansion. Therefore, the increased flows associated with the expansion cannot be permitted. This Order includes a reopener that will allow the Regional Water Board to reopen the Order to allow an increased discharge to Rock Creek upon availability of additional information indicating that an increase in flow to Rock Creek is in the best interest of the people of the State and documentation of the Discharger's diligent efforts towards regionalization. This Order also requires annual reporting on the Discharger's efforts towards regionalization.~~

d. Socioeconomic Evaluation. The objective of the socioeconomic analysis was to determine if the lowering of water quality in Rock Creek and Dry Creek is in the maximum interest of the people of the State. The socioeconomic evaluation considered:

1. The social benefits and costs based on the ability to accommodate socioeconomic development in the Placer County General Plan.

2. The magnitude of the change in water quality from existing conditions, the water quality impacts, and expected effects on beneficial uses of Rock and Dry creeks and downstream waters.

3. The feasibility and effectiveness of reducing the lowering of water quality by implementing alternatives to lowering of Rock Creek and Dry Creek water quality.

4. The economic costs for alternatives and assessed alternative costs against the current project expansion cost estimate of $87 million, the increased cost for ratepayers, and the magnitude of the change in ratepayer costs.

e. The rationale for determining that the proposed action is or is not justified by socioeconomic considerations.

i. The Antidegradation Analysis rationale. The Antidegradation Analysis provided the following rationale to justify the proposed expansion:

1. Having new development in the region independently treat its wastewater in an effort to eliminate any incremental degradation of water quality in Rock and Dry creeks would not be cost-effective, may not reduce loadings to downstream portions of the watershed (e.g., Sacramento River), and may not improve water quality (from a constituent concentration basis) throughout Rock and Dry creeks. Moreover, disposal of the new development's wastewater elsewhere may simply cause similar and possibly new forms of degradation elsewhere in Rock and Dry creeks, in other surface waterbodies, or in groundwater.

2. An evaluation of several alternatives, and their effects on water quality impacts and beneficial use protection, did not identify any feasible alternative control measure that more effectively would accommodate the planned and approved growth that would result from implementing the alternative, relative to implementing the proposed project (i.e., planned upgrade/expansion). The alternatives were found infeasible for cost or logistic concerns or both, when compared to the proposed action of increased SMD 1 WWTP discharge.

3. The SMD1 WWTP has sought to identify customers for use of recycled water. Currently prospective customers can obtain water from NID at a cheaper cost, however, the County will continue to pursue potential recycled water use opportunities in the future, thereby minimizing discharges to surface waters.

4. The County will continue to operate a treatment train that meets and exceeds BPTC and will facilitate greater use of recycled water, upon demand for such water developing in the area.

5. The limited degradation in receiving water quality that may occur as a result of planned discharge expansion is not significant and would accommodate important socioeconomic development in the service area while maintaining full protection of the Rock Creek and Dry Creek beneficial uses.

6. Downstream water quality, within Rock and Dry creeks, resulting from the proposed expansion would not cause a nuisance and would continue to be protective of all beneficial uses within the creek, as well as uses of downstream waters.

ii. Regional Water Board rationale. Potential degradation identified in the Antidegradation Analysis is not justified by the following considerations:

1. Projected demand for treatment will not exceed the current treatment capacity of 2.18 MGD until 2020, which is five years after the term of this permit; and

2. The Discharger continues to pursue the regionalization alternative concurrent with the proposed expansion, and estimates that regionalization could be complete in seven years, should funding become available and make this project feasible, which is before the demand in the service area is projected to approach the current permitted capacity, but after final effluent limitations in this Order become effective.

Given that projected demand for treatment will not exceed the treatment capacity of 2.18 MGD until 2020 and that regionalization continues to be a feasible option, provided that adequate funding options are available, the Regional Water Board finds that the requested increase in discharge capacity to 2.7 MGD cannot be permitted. This Order includes a reopener that will allow the Regional Water Board to reopen the Order to allow an increased discharge to Rock Creek upon availability of additional information indicating that an increase in flow to Rock Creek is in the best interest of the people of the State.

p. F-80, b. Infiltration and Inflow (I/I) Reduction Program. The County conducts smoke testing of the collection system annually. As a result of this smoke testing, the County has been able to identify private sector defects. In such cases, the County sends letters to the homeowner and follows up to make sure the defects are corrected. These repairs are relatively minor and most (approximately 99%) of the defects identified are corrected by the homeowner in one to two months. These types of defects cannot be readily identified until smoke testing is conducted. As such, it is not practical for the County prioritize or schedule repairs of these types of defects. Furthermore, they are readily corrected, thus it is not practical for the County to log and track the status of work remaining to complete these repairs in an annual report. As such, the County requests the following modifications to the 5th paragraph of this section:

Based on a review of the Discharger's January 2010 Report, additional measures are necessary to reduce levels of I/I in the Discharger's collection system. This Order requires the Discharger to complete the repairs identified in the priority list from the July 2007 Report. The Discharger must also re-evaluate the collection system and submit an updated priority list and implementation schedule for additional repairs within 6 months of adoption of this Order. ~~The July 2007 Report indicated that defects on private property have been identified. Therefore, the updated priority list and implementation schedule shall also address private sector I/I sources, including identification of the types and numbers of private sector defects and efforts necessary to achieve defect corrections.~~ The Discharger is required to maintain a log and shall submit an annual report with tabular summaries of work completed and work remaining to complete the repairs identified in the updated priority list. The

Discharger shall complete repairs of the collection system in accordance with the updated priority list and implementation schedule within 18 months of adoption of this Order.

IV. EXPANSION OPTION

Waste Discharge Requirements

p. 3 of 20, 7. Ultraviolet Disinfection (UV) System Operating Specifications. The County requests that these requirements that relate to how the UV disinfection system is operated and maintained be deleted. No similar requirements were ever specified for the chlorine disinfection process, such as motile contact time. The Standard Provisions in Attachment D of the Tentative Order already require proper operation and maintenance. As with the chlorine disinfection process, adequate disinfection should be demonstrated by compliance with the total coliform organisms effluent limitation. See also the Prescription of Operations and Treatment comment on p. 4-5 of this attachment.

p. 4 of 20, 6. Other Special Provisions. The County requests conditions "i" (Effluent and Receiving Water Compliance) and "iii" (Request for Increase) be removed from this Special Provision. The permitted average dry weather flow should only be contingent on completion of the SMD 1 WWTP upgrades and expansion. This is consistent with other permits adopted by the Regional Water Board in the past. (See Waste Discharge Requirements for City of Roseville, Order No. R5-2008-0079.) Conditions "i" and "iii" are ambiguous and leave uncertainty regarding whether expanded capacity will be authorized by the Executive Officer. When investing many tens of $millions in improving the performance and expanding the capacity of the SMD1 WWTP, which will occur during the life of this renewed permit, the County needs greater certainty in this Order regarding how the Regional Water Board will regulate the upgraded/expanded facility.

Monitoring and Reporting Program (Attachment E)

p. 5 of 20, 11., C. 1. Monitor Ultraviolet Disinfection (UV) System Operating Specifications. The County requests that these additional UV disinfection process monitoring requirements be deleted. No special monitoring requirements were ever specified for the chlorine disinfection process, such as motile contact time. The Standard Provisions in Attachment D already require proper operation and maintenance. Further, there are no effluent limitations that relate to UV system flow rate, turbidity, number of banks in operation, UV transmittance, UV power setting or UV dose.

Fact Sheet (Attachment F)

p. 9 of 20, Table F-9, Summary of Final Effluent Limitations. Consistent with our comments on the Tentative Order (above) that effluent limitations for aluminum, arsenic, copper, lead, and electrical conductivity are not warranted, the County requests that these constituents be deleted from this table.

p. 10 of 20, item 19. Satisfaction of Antidegradation Policy. As noted in the General Comments the County is concerned that the Antidegradation Policy discussion is incomplete. For simplicity in illustrating the recommended edits, the strikethrough/underline text edits in the "Expansion Option" have been "accepted" so that the County's requested insertions are provided as single underline and deletions are provide as ~~single strikethrough~~.

The Discharger developed a report titled, *Antidegradation Analysis for the Placer County SMD1 Wastewater Treatment Plant*, October 2009 (Robertson-Bryan Inc.), that provides an antidegradation analysis following the guidance provided by State Water Board APU 90-004. Pursuant to the guidelines, the Antidegradation Analysis evaluated whether changes in water quality resulting from a proposed ~~new~~ expanded capacity discharge to Rock Creek (proposed increase of 0.52 MGD for a total discharge of 2.7 MGD of tertiary treated wastewater) are consistent with the maximum benefit to the people of the State, will not unreasonably affect beneficial uses, will not cause water quality to be less than water quality objectives, and that the discharge provides protection for existing in-stream uses and water quality necessary to protect those uses. The Regional Water Board concurs with the Discharger's Antidegradation Analysis. Facts and findings from the Antidegradation Analysis are summarized below.

a. Water quality parameters and beneficial uses which will be affected by this Order and the extent of the impact. This Order does not adversely impact beneficial uses of the receiving water or downstream receiving waters. All beneficial uses will be maintained and protected. This Order provides for an increase in the volume and mass of pollutants discharged directly to the receiving water. 40 CFR 131.12 defines the following tier designations to describe water quality in the receiving water body.

Tier 1 Designation*: Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. (40 CFR 131.12)*

Tier 2 Designation*: Where the quality of waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. (40 CFR 131.12)*

The tier designation is assigned on a pollutant-by-pollutant basis. The following is the potential effect on ~~water quality parameters regulated in this Order, and~~ of the proposed expanded capacity 2.7 MGD ADWF discharge on water quality in Rock Creek, as assessed in the Antidegradation Analysis:

i. Rock Creek was designated as a Tier 1 receiving water for aluminum, bis (2-ethylhexyl) phthalate, and iron because these constituents were detected in the receiving water above

water quality criteria. Thus, the SIP independently requires effluent limitations for these constituents, when detected in the discharge, as the means to prevent further degradation of the receiving water regardless of whether constituent levels in the proposed increased discharge do/do not exceed water quality criteria. For bis (2-ethylhexyl) phthalate, it is probable that the historical detects are due to contamination prior to implementing clean sampling techniques. The proposed incremental increase in discharge would not significantly lower water quality for these constituents in Rock and Dry creeks, relative to that which would occur under the current permitted capacity for the SMD1 WWTP, and would not change the Tier 1 designations.

ii. The proposed increase in discharge would use less than 10 percent of available assimilative capacity for all constituents assessed. Thus, the proposed increased discharge will be protective of beneficial uses, will maintain greater than 90 percent of assimilative capacity in ~~Orchard~~ Rock Creek, and will not change the Tier 2 designations.

iii. The proposed increase in discharge would use less than 10 percent of available assimilative capacity on a mass loading basis for total dissolved solids and the bioaccumulative constituents~~,~~ mercury~~,~~ and selenium, and ~~total dissolved solids~~ will not change the Tier 2 designations.

b. Scientific Rationale for Determining Potential Lowering of Water Quality. The rationale used in the Antidegradation Analysis is based on 40 CFR 131.12, USEPA memorandum Regarding Tier 2 Antidegradation Reviews and Significance Thresholds (USEPA 2005), USEPA Region 9 Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12 (USEPA 1987), State Water Board Resolution No. 68-16, a State Water Board 1987 policy memorandum to the Regional Water Boards, and an Administrative Procedures Update (APU 90-004) issued by the State Water Board to the Regional Water Boards.

The scientific rationale used in the Antidegradation Analysis to determine if the Order allows a lowering of water quality is to determine the reduction of available assimilative capacity. Assimilative capacity was calculated on a mass-balanced, concentration basis and, for bioaccumulative constituents, calculated on a mass loading basis. This approach is consistent with recent USEPA guidance and addresses a key objective of the antidegradation analysis to "[c]***ompare receiving water quality to the water quality objectives established to protect designated beneficial uses***" (APU 90-004). USEPA has recommended ten (10) percent as a measure of significance for identifying those substantial lowerings of water quality that should receive a full tier 2 antidegradation review. APU 90-004 requires the consideration of "feasible alternative control measures" as part of the procedures for a complete antidegradation analysis.

The Antidegradation Analysis analyzed each pollutant detected in the effluent and receiving water to determine if the proposed increase in discharge from 2.18 MGD to 2.7 MGD authorized by this Order potentially allows significant increase of the amount of pollutants present in the upstream and downstream receiving water influenced by the proposed discharge. Pollutants that significantly increase concentration or mass downstream would have required an alternatives analysis to determine whether implementation of alternatives to the proposed action would be in the best socioeconomic interest of the people of the region, and be to the maximum benefit of the

people of the State. Details on the scientific rationale are discussed in detail in the Antidegradation Analysis.

The Regional Water Board concurs with this scientific approach.

d. Alternative Control Measures Considered. Resolution 68-16 requires that degradation of water quality be consistent with maximum benefit to the people of the State. APU 90-004 identifies factors to be considered for regulatory actions "***that, in the Regional Board's judgement*** [sic]***, will result in a significant increase in pollutant loadings"*** (i.e., when a complete antidegradation analysis is required) when determining whether the discharge is necessary to accommodate social or economic development and is consistent with maximum public benefit~~,~~. The USEPA (2005) has recommended ten (10) percent use of available assimilative capacity as the measure of significance for identifying those substantial lowerings of water quality that should receive a full tier 2 antidegradation review. The Regional Water Board is exercising its judgment to require a complete antidegradation analysis, and ~~which includes~~ implementation of feasible alternative control measures which might reduce, eliminate, or compensate for negative impacts.

i. Alternative control measures in Antidegradation Analysis. The Discharger considered several alternatives that would reduce or eliminate the lowering of water quality resulting from the proposed increase in discharge from 2.18 MGD to 2.7 MGD. [**insert the paragraph on p. F-63 beginning with this sentence and the subsequent paragraphs through Table F-10**].

ii. **Additional information considered by Regional Water Board.** Table 3-1 of the Report of Waste Discharge summarized the existing and projected demands within the service area. As shown in Table 3-1, the projected demand will not surpass the current treatment capacity of 2.18 MGD until after 2020. Furthermore, the projected demand of 2.7 MGD on which the Discharger's request is based is not expected until 2034. Based on the information provided in the Report of Waste Discharge, demand is not expected to exceed the current treatment capacity of the Facility within the term of this Order. However, in a letter dated 22 February 2010, the Discharger expressed its need to expand the Facility capacity concurrent with implementing the upgrades necessary to achieve compliance with this Order for economical and logistical reasons.

The Discharger reported at the April 2009 Board Meeting, and in a subsequent semiannual progress report submitted 1 June 2009, that the Discharger is continuing to actively pursue regionalization. In a letter dated 22 February 2010, the Discharger indicated that the regionalization project would take at least 2 years to complete beyond the 5 years requested for the proposed expansion project (i.e., in 7 years) due to delays associated with the slow pace of acquiring federal funding and the need to resolve complex issues between the Discharger and other local entities. The Regional Water Board concurs that regionalization is not currently feasible.

The Regional Water Board adopted Resolution No. R5-2009-0028 in Support of Regionalization, Reclamation, Recycling, and Conservation for Wastewater Treatment Plants on 23 April 2009, which requires the Regional Water Board to facilitate opportunities for regionalization and consider innovative permitting options when existing NPDES permit

requirements, waste discharge requirements, and/or enforcement Orders inhibit the ability to implement regionalization. Resolution No. R5-2009-0028 identifies a number of potential benefits to regionalization including the following: ~~First, coordinated management of water supplies and wastewaters on a regional basis promotes efficient utilization of water. Second, reducing discharges of wastewater into seasonal or ephemeral streams such as Rock Creek and Dry Creek reduces habitat changes to the waterbodies that occur when wastewater is discharged into stream channels at locations, volumes or times when flow is not naturally present in the streams. Lastly,~~

- *"Reducing discharges of wastewater into seasonal or ephemeral streams reduces habitat changes to the waterbodies that occur when wastewater is discharged into stream channels at locations, volumes or times when flow is not naturally present in the streams."*
- *"The costs of constructing, expanding, upgrading and maintaining wastewater collection and treatment systems are large, and can be severe impact on small communities and small economically disadvantaged communities. Increased rates on most communities, but especially for the small communities in particular, result in the likelihood of a successful Proposition 218 challenge to rate increases, which may make compliance with regulations and improvements in water quality difficult or impossible for some communities. While the capital investment for regionalization of wastewater collection and treatment systems may result in a higher initial cost of upgrading an existing facility to meet current regulatory requirements, costs associated with meeting future regulatory requirements and system upgrades can be spread over a larger population and will ultimately reduce the per capita costs of wastewater treatment and disposal. Regionalization will also increase the technical and economical feasibility of a higher level of wastewater treatment, allowing the treated water to be a "resource" and not merely a "waste."*

The Discharger has stated that current financial projections prepared by County staff do not support a finding that there is a future economic benefit to SMD 1 ratepayers through regionalization. As shown in Table F-10 (taken from the Antidegradation Analysis) both the capital cost and the ongoing operational cost of regionalization are higher than the proposed upgrade and expansion cost.

Furthermore, the Resolution No. R5-2009-0028 makes several findings including:

- *"Coordinated management of water supplies and wastewaters on a regional basis must be promoted to achieve efficient utilization of water."*
- *"Evaluating regionalization, reclamation, recycling and/or conservation opportunities requires a balancing of these and many other considerations, including impacts to water quality, costs, authority to implement and other factors necessary to determine if regionalization, reclamation, recycling and/or conservation are feasible and practicable for the specific facility(ies)."*
- *"Focused, long-range planning is necessary to identify and implement regionalization, reclamation, recycling and/or conservation opportunities. This is a continuing process in that certain projects may not be technically or fiscally feasible at this time, but may*

become feasible as the community grows, treatment systems are upgraded, or other factors change with time."

~~For instance,~~ As an example of the potential, through regionalization, to treat the discharge as a resource rather than a waste, the City of Lincoln Wastewater Treatment and Reclamation Facility has a Master Reclamation Permit (Order No. R5-2005-0040) to use recycled water for the irrigation of fodder crops, rice, impoundments, industrial process cooling, and other purposes in the local community, whereas the Discharger determined that reclamation of its wastewater is not feasible at this time, as described in this section above (i.e., IV.D.4.b).

In order to continue evaluating the feasibility of regionalization, this Order requires annual reporting on the Discharger's efforts towards regionalization concurrent with the upgrade and expansion project.

d. Socioeconomic Evaluation. The objective of the socioeconomic analysis was to determine if the lowering of water quality in Rock Creek and Dry Creek is in the maximum interest of the people of the State. The socioeconomic evaluation considered:

1. The social benefits and costs based on the ability to accommodate socioeconomic development in the Placer County General Plan.

2. The magnitude of the change in water quality from existing conditions, the water quality impacts, and expected effects on beneficial uses of Rock and Dry creeks and downstream waters.

3. The feasibility and effectiveness of reducing the lowering of water quality by implementing alternatives to lowering of Rock Creek and Dry Creek water quality.

4. The economic costs for alternatives and assessed alternative costs against the current project expansion cost estimate of $87 million, the increased cost for ratepayers, and the magnitude of the change in ratepayer costs.

~~Given the current infrastructure, future development in the service area would rely on the Discharger and its Facility for wastewater collection, treatment, and recycled water services. The expansion of the Facility from the current permitted flow of 2.18 MGD to 2.7 MGD would accommodate planned and approved growth in the surrounding areas. Placing connection bans on the Facility to prevent increased discharges, thereby eliminating any incremental change to Rock Creek and Dry Creek water quality, would have negative effects on important socioeconomic development in the area. Should the incremental changes in water quality in Rock Creek and Dry Creek characterized herein be disallowed, such action would: (1) force future developments in the Discharger's service area to find alternative methods for disposing of wastewater; (2) require adding microfiltration or a reverse-osmosis treatment process to a significant portion of flow, and possibly other plant upgrades, to eliminate the small water quality changes; or (3) prohibit planned and approved development within and adjacent to the~~

~~Discharger's service area. On balance, allowing the minor degradation of water quality is in the best interest of the people of the area and the State, compared to these other options; and is necessary to accommodate important economic or social development in the area.~~

e. Justification for Allowing Degradation.

i. The Antidegradation Analysis rationale. The Antidegradation Analysis provided the following rationale to justify the proposed expansion:

1. Having new development in the region independently treat its wastewater in an effort to eliminate any incremental degradation of water quality in Rock and Dry creeks would not be cost-effective, may not reduce loadings to downstream portions of the watershed (e.g., Sacramento River), and may not improve water quality (from a constituent concentration basis) throughout Rock and Dry creeks. Moreover, disposal of the new development's wastewater elsewhere may simply cause similar and possibly new forms of degradation elsewhere in Rock and Dry creeks, in other surface waterbodies, or in groundwater.

2. An evaluation of several alternatives, and their effects on water quality impacts and beneficial use protection, did not identify any feasible alternative control measure that more effectively would accommodate the planned and approved growth that would result from implementing the alternative, relative to implementing the proposed project (i.e., planned upgrade/expansion). The alternatives were found infeasible for cost or logistic concerns or both, when compared to the proposed action of increased SMD 1 WWTP discharge.

3. The SMD1 WWTP has sought to identify customers for use of recycled water. Currently prospective customers can obtain water from NID at a cheaper cost, however, the County will continue to pursue potential recycled water use opportunities in the future, thereby minimizing discharges to surface waters.

4. The County will continue to operate a treatment train that meets and exceeds BPTC and will facilitate greater use of recycled water, upon demand for such water developing in the area.

5. The limited degradation in receiving water quality that may occur as a result of planned discharge expansion is not significant and would accommodate important socioeconomic development in the service area while maintaining full protection of the Rock Creek and Dry Creek beneficial uses.

6. Downstream water quality, within Rock and Dry creeks, resulting from the proposed expansion would not cause a nuisance and would continue to be protective of all beneficial uses within the creek, as well as uses of downstream waters.

ii. Regional Water Board rationale. Potential degradation identified in the Antidegradation Analysis due to this Order is justified by the following considerations:

1. Implementation of alternatives does not provide important socioeconomic benefit to the people of the region, nor do they provide maximum benefit to the people of the State. The

alternatives to the proposed project would inhibit socioeconomic growth making it economically infeasible for any new development to occur;

2. The Discharger's planned wastewater treatment facility will produce Title 22-equivalent tertiary treated effluent that will result in minimal water quality degradation. The Discharger's planned wastewater treatment process will meet or exceed the highest statutory and regulatory requirements which meets or exceeds best practical, treatment and control (BPTC);

3. The Order is fully protective of beneficial uses of Rock Creek and Dry Creek. The anticipated water quality changes in Rock Creek and Dry Creek will not reduce or impair designated beneficial uses and is consistent with State and federal antidegradation policies;

4. No feasible alternatives currently exist to reduce the impacts available; and

5. The Discharger has fully satisfied the requirements of the intergovernmental coordination and public participation provisions of the State's continuing planning process concurrent with the public participation period of this Order.

p. 11 of 20, Item ii. "Orchard Creek" should be changed to "Rock Creek," which is the SMD 1 WWTP receiving water.

p. 18 of 20, Ultraviolet Disinfection Monitoring and 19 of 20, Ultraviolet (UV) System Operating Specifications. The County requests that the requirements that relate to how the UV disinfection system is monitored, operated and maintained be deleted for the reasons specified in the "Prescription of Operations and Treatment" comment on pp. 4-5 of this attachment.